

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Original) A mobile communication system including a core network having a node with a packet switching function for packet data communication, a radio network controller, and a mobile terminal, wherein a connection is set on an interface between the radio network controller and the node, the mobile communication system comprising:

connection setting means for setting the connection for multicast data communication faster than the packet data communication, separately from the connection for the packet data communication.

2. (Original) The mobile communication system according to claim 1, wherein the connection setting means sets the connection for the multicast data communication in common to a plurality of mobile terminals that attempt to receive a service of the multicast data communication.

3. (Original) The mobile communication system according to claim 2, wherein the connection setting means sets the connection for the multicast data communication in response to a service receiving request from a first mobile terminal attempting to receive the multicast data communication service.

4. (Original) The mobile communication system according to claim 2, further comprising:

a first connection releasing means for releasing the connection for the multicast data communication in response to a service leaving request from a last mobile terminal

receiving the multicast data communication service.

5. (Original) The mobile communication system according to claim 1, wherein the connection setting means sets the connection for the multicast data communication individually to each of the plurality of the mobile terminals that attempt to receive the multicast data communication service.

6. (Original) The mobile communication system according to claim 5, further comprising:

a second connection releasing means for, in response to the multicast data communication service leaving request from each of the plurality of mobile terminals, releasing the connection for the multicast data communication corresponding to the mobile terminal.

7. (Original) The mobile communication system according to claim 1, wherein the connection for the multicast data communication in the mobile terminal is managed in a PS domain including an area for the packet switching function in the core network.

8. (Original) The mobile communication system according to claim 1, wherein the connection for the multicast data communication in the mobile terminal is managed in a domain dedicated to the multicast data communication which is different from the PS domain including the area for the packet switching function in the core network.

9. (Original) A method of controlling operations in a mobile communication system including a core network having a node with a packet switching function for packet data

communication, a radio network controller, and a mobile terminal, wherein a connection is set on an interface between the radio network controller and the node, the method comprising:

a connection setting step of setting the connection for multicast data communication faster than the packet data communication, separately from the connection for the packet data communication.

10. (Original) The method according to claim 9, wherein the connection setting step includes setting the connection for the multicast data communication in common to a plurality of mobile terminals that attempt to receive a service of the multicast data communication.

11. (Original) The method according to claim 10, wherein the connection setting step includes setting the connection for the multicast data communication in response to a service receiving request from a first mobile terminal attempting to receive the multicast data communication service.

12. (Original) The method according to claim 10, further comprising:

a first connection releasing step of releasing the connection for the multicast data communication in response to a service leaving request from a last mobile terminal receiving the multicast data communication service.

13. (Original) The method according to claim 9; wherein the connection setting step includes setting the connection for the multicast data communication individually to each of the plurality of the mobile terminals that attempt to receive the multicast data

communication service.

14. (Original) The method according to claim 13, further comprising:

a second connection releasing step of, in response to the multicast data communication service leaving request from each of the plurality of mobile terminals, releasing the connection for the multicast data communication corresponding to the mobile terminal.

15. (Original) A node in a mobile communication system including a core network having a node with a packet switching function for packet data communication, a radio network controller, and a mobile terminal, wherein a connection is set on an interface between the node and the radio network controller, the node in the mobile communication system comprising:

connection setting means for setting the connection for multicast data communication faster than the packet data communication, separately from the connection for the packet data communication.

16. (Original) The node according to claim 15, wherein the connection setting means sets the connection for the multicast data communication in common to a plurality of mobile terminals that attempt to receive a service of the multicast data communication.

17. (Original) The node according to claim 16, wherein the connection setting means sets the connection for the multicast data communication in response to a service receiving request from a first mobile terminal attempting to receive the multicast data communication service.

18. (Original) The node according to claim 16, further comprising:

a first connection releasing means for releasing the connection for the multicast data communication in response to a service leaving request from a last mobile terminal receiving the multicast data communication service.

19. (Original) The node according to claim 15, wherein the connection setting means sets the connection for the multicast data communication individually to each of the plurality of the mobile terminals that attempt to receive the multicast data communication service.

20. (Original) The node according to claim 19, further comprising:

a second connection releasing means for, in response to the multicast data communication service leaving request from each of the plurality of mobile terminals, releasing the connection for the multicast data communication corresponding to the mobile terminal.

21. (Original) A computer readable program for making a computer execute operation controlling of a node in a mobile communication system including a core network having a node with a packet switching function for packet data communication, a radio network controller, and a mobile terminal, wherein a connection is set on an interface between the radio network controller and the node, the program comprising:

a connection setting step of setting the connection for multicast data communication faster than the packet data communication, separately from the connection for the packet data communication.

22. (Original) The program according to claim 21, wherein the connection setting step includes setting the connection for the multicast data communication in common to a plurality of mobile terminals that attempt to receive a service of the multicast data communication.

23. (Original) The program according to claim 22, wherein the connection setting step includes setting the connection for the multicast data communication in response to a service receiving request from a first mobile terminal attempting to receive the multicast data communication service.

24. (Original) The program according to claim 22, further comprising:

a first connection releasing step of releasing the connection for the multicast data communication in response to a service leaving request from a last mobile terminal receiving the multicast data communication service.

25. (Original) The program according to claim 21, wherein the connection setting step includes setting the connection for the multicast data communication individually to each of the plurality of the mobile terminals that attempt to receive the multicast data communication service.

26. (Original) The program according to claim 25, further comprising:

a second connection releasing step of, in response to the multicast data communication service leaving request from each of the plurality of mobile terminals, releasing the connection for the multicast data communication corresponding to the mobile terminal.

27. (Previously Presented) A mobile communication system, comprising:

a core network for packet switching; and

a radio network controller which initiates a request for signaling connection to said core network to set on an interface with said core network,

wherein, if a request is related to multimedia broadcast multicast service, said core network initiates a request for signaling connection to said radio network controller, instead of the request being initiated from said radio network controller.

28. (Previously Presented) The mobile communication system claimed in claim 27, wherein a single signaling connection initiated for said multimedia broadcast multicast service is shared among a plurality of mobile terminals which receive common multimedia broadcast multicast service.

29. (Previously Presented) The mobile communication system claimed in claim 28, wherein said single signaling connection for said multimedia broadcast multicast service is separately initiated from a signaling connection for packet service which is not said multimedia broadcast multicast service.

30. (Previously Presented) The mobile communication system claimed in claim 28, wherein, when said single signaling connection for said multimedia broadcast multicast service is set and another mobile terminal requests for receiving said multimedia broadcast multicast service, the other mobile terminal receives said multimedia broadcast multicast service by using said single signaling connection.

31. (Previously Presented) The mobile communication system claimed in claim 30, wherein said core network releases said single signaling connection for said multimedia broadcast multicast service in response to a multimedia broadcast multicast service leaving request from a last mobile terminal receiving said multimedia broadcast multicast service.

32. (Previously Presented) The mobile communication system claimed in claim 30, wherein, in response to a multimedia broadcast multicast service leaving request from each of said plurality of mobile terminals, said core network releases the signaling connection for said multimedia broadcast multicast service corresponding to the mobile terminal.

33. (Previously Presented) A method of controlling operation in a mobile communication system including a core network for packet switching, and a radio network controller which initiates a request for signaling connection to said core network to set on an interface with said core network, the method comprising:

if a request is related to multimedia broadcast multicast service, initiating a request for signaling connection to said radio network controller, instead of initiating the request from said radio network controller,.

34. (Previously Presented) The method claimed in claim 33, wherein said initiating a request includes setting single signaling connection initiated for said multimedia broadcast multicast service to be shared among a plurality of mobile terminals those of which receive common multimedia broadcast multicast service.

35. (Previously Presented) The method claimed in claim 34, wherein said initiating includes setting said single signaling connection for said multimedia broadcast multicast service to be separately initiated from signaling connection for packet service which is not said multimedia broadcast multicast service.

36. (Previously Presented) The method claimed in claim 34, wherein, when said single signaling connection for said multimedia broadcast multicast service is set and the other mobile terminal requests for receiving said multimedia broadcast multicast service, the other mobile terminal receives said multimedia broadcast multicast service by using said single signaling connection.

37. (Previously Presented) The method claimed in claim 36, further comprising:
releasing said single signaling connection for said multimedia broadcast multicast service in response to a multimedia broadcast multicast service leaving request from a last mobile terminal receiving said multimedia broadcast multicast service.

38. (Previously Presented) The method claimed in claim 36, further comprising:
in response to a multimedia broadcast multicast service leaving request from each of said plurality of mobile terminals, releasing the signaling connection for said multimedia broadcast multicast service corresponding to the mobile terminal.

39. (Previously Presented) A core network for a mobile communication system, comprising:

an SGSN (Serving GPRS (Global Packet Radio Service) Support Node to configure the core network and a radio network controller that is interconnected to said

core network in said mobile communication system for a packet switching, said radio network controller initiating a request for signaling connection to said core network to set on an interface with said core network,

wherein, if a request is related to multimedia broadcast multicast service, said core network initiates a request for signaling connection to said radio network controller, instead of the request from said radio network controller.

40. (Previously Presented) The core network claimed in claim 39, wherein single signaling connection initiated for said multimedia broadcast multicast service is shared among a plurality of mobile terminals those of which receive common multimedia broadcast multicast service.

41. (Previously Presented) The core network claimed in claim 40, wherein said single signaling connection for said multimedia broadcast multicast service is separately initiated from signaling connection for packet service which is not said multimedia broadcast multicast service.

42. (Previously Presented) The core network claimed in claim 40, wherein, when said single signaling connection for said multimedia broadcast multicast service is set and the other mobile terminal requests for receiving said multimedia broadcast multicast service, the other mobile terminal receives said multimedia broadcast multicast service by using said single signaling connection.

43. (Previously Presented) The core network claimed in claim 42, wherein said core network releases said single signaling connection for said multimedia broadcast multicast

service in response to a multimedia broadcast multicast service leaving request from a last mobile terminal receiving said multimedia broadcast multicast service.

44. (Previously Presented) The core network claimed in claim 42, wherein, in response to a multimedia broadcast multicast service leaving request from each of said plurality of mobile terminals, said core network releases the signaling connection for said multimedia broadcast multicast service corresponding to the mobile terminal.

45. (New) A mobile communications system, comprising:

a core network for packet switching; and

a radio network controller to control a radio network,

wherein a first signaling connection for a first communications service and a second signaling connection for a second communications service are set on an interface between said core network and said radio network controller,

said second communications service is faster than said first communications service, and

said second signaling connection is set separately from said first signaling connection.

46. (New) The mobile communications system according to claim 45, further comprising:

a plurality of mobile terminals,

wherein said second signaling connection is shared among said plurality of mobile terminals.

47. (New) The mobile communications system according to claim 45, wherein said second communications service comprises a multimedia broadcast multicast service (MBMS).

48. (New) The mobile communications system according to claim 45, wherein said first communications service comprises a packet switching (PS) service.

49. (New) The mobile communications system according to claim 48, wherein said first signaling connection comprises a PS Iu connection.

50. (New) The mobile communications system according to claim 45, wherein said first communications service comprises a circuit switching (CS) service.

51. (New) The mobile communications system according to claim 46, wherein said second signaling connection is set in response to a joining request from one of said plurality of mobile terminals when none of said plurality of mobile terminals receives said second communications service.

52. (New) The mobile communications system according to claim 46, wherein said second signaling connection is released in response to a leaving request from one of said plurality of mobile terminals when only said one of said plurality of mobile terminals receives said second communications service.

53. (New) A mobile communications method used in a mobile communications system having a core network for packet switching and a radio network controller to control a radio network, said method comprising:

setting a first signaling connection for a second communications service on an interface between said core network and said radio network controller; and

setting a second signaling connection for a second communications service separately from said first signaling connection on said interface,

wherein said second communications service is faster than said first communications service.

54. (New) The mobile communications method according to claim 53, wherein said mobile communications system comprises a plurality of mobile terminals, and

said second signaling connection is shared among said plurality of mobile terminals.

55. (New) The mobile communications method according to claim 53, wherein said first communications service comprises a multimedia broadcast multicast service (MBMS).

56. (New) The mobile communications method according to claim 53, wherein said second communications service comprises a packet switching (PS) service.

57. (New) The mobile communications method according to claim 56, wherein said first signaling connection comprises a PS Iu connection.

58. (New) The mobile communications method according to claim 53, wherein said first communications service comprises a circuit switching (CS) service.

59. (New) The mobile communications method according to claim 54, wherein said second signaling connection is set in response to a joining request from one of said plurality of mobile terminals when none of said plurality of mobile terminals receives said second communications service.

60. (New) The mobile communications method according to claim 54, further comprising:
releasing said second signaling connection in response to a leaving request from one of said plurality of mobile terminals when only said one of said plurality of mobile terminals receives said second communications service.

61. (New) A mobile communications system comprising:
a core network for packet switching; and
a radio network controller to control a radio network,
wherein a first signaling connection for a first communications service and a second signaling connection for a second communications service are set on an interface between said core network and said radio network controller,
said second communications service is faster than said first communications service,
and

said core network initiates a request for said second signaling connection to said radio network controller.

62. (New) A mobile communications system, comprising:

a core network for packet switching; and

a radio network controller to control a radio network,

wherein a first signaling connection for a first communications service and second signaling connection for a second communications service are set on an interface between said core network and said radio network controller,

said second communications service is faster than said first communications service,

said core network comprises an SGSN (serving GPRS (global packet radio service) support node), and

wherein said SGSN manages said second signaling connection.

63. (New) A mobile communications method used in a mobile communications system having a core network for packet switching and a radio network controller to control a radio network, said method comprising:

setting a first signaling connection for a first communications service on an interface between said core network and said radio network controller; and

setting a second signaling connection for a second communications service on said interface, wherein said second communications service is faster than said first communications service,

said core network initiates a request for said second signaling connection to said radio network controller.

64. (New) A mobile communication method used in a mobile communications system having a core network for packet switching and a radio network controller to control a radio network, said method comprising:

setting a first signaling connection for a first communications service on an interface between said core network and said radio network controller; and

setting a second signaling connection for a second communications service on said interface,

wherein said second communications service is faster than said first communications service,

said core network comprises a SGSN (serving GPRS (global packet radio service) support node), and

said SGSN manages said second signaling connection.